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THE GEORGE WASHINGTON UNIVERSITY
SCHOOL OF GOVERNMENT

U. S. NAVY GRADUATE COMPTROLLERSHIP PROGRAM

A REVOLUTIONARY EXPERIMENT

A Critical Appraisal of the Navy Industrial Fund in Operation

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The Navy Industrial Fund Program, nurtured by the enthusiastic acceptance accorded it by management, has grown from a revolutionary experiment in government fiscal operations to a stature of prominence within the fiscal structure of the Navy.

—*The Navy Industrial Fund Program*

PREFACE

After ten years of experience with industrial fund financing, at least one of the augured triumvirate—economy, efficiency, and effectiveness—has failed to materialize. Efficiency and effectiveness are difficult to detect and measure. It could be that they too have failed to develop to the degree that was expected. This state of affairs has caused the Navy no little concern.

Businessmen, engineers, accountants, management consultants, and naval officers have investigated naval activities financed by the Navy Industrial Fund. These activities are, after all, big business. Why is it that they cannot be operated like big business? Explanations have ranged from generalizations about the profit motive to conjecture about reimbursement for ship-based sailors who use shipyard sidewalks. It may be that the experts have been unable to see the forest for the trees. The purpose of this paper is to examine a few leaves, some branches, and a tree or so. But, above all, the purpose is to take an over-all look at the forest.

I believe—and hope—that the paper contains nothing except common sense. Perhaps the content is not only common sense but also commonplace. So much the better. I have attended lengthy conferences at which it has been argued that an overtime hour at a naval shipyard actually costs less than a straight-time hour because overhead workers are not present to support the overtime hour. On such occasions, a touch of commonplace common sense would not have been unwelcome.

The basic problems are of considerable significance. If there are reasons why a governmental agency in a democracy cannot run an industrial activity in a businesslike manner, the reasons should be discovered and examined. More specifically, if there are factors inherent in the military operation of an industry which preclude economy, efficiency, and effectiveness, they should be made known. Do these factors present insurmountable difficulties? The most conservative economist cannot but concede that the years ahead are likely to see the government entering more activities. Some of these activities will inevitably be of the industrial-commercial type.

Closely associated, but even broader, problems have important implications. How can the cost of essential defense be held down? The President has alerted the Nation to the problem if, in fact, there was anyone who was not aware of it. Years ago Thorstein Veblen wrote, "There is nothing in the logic of the modern situation that should stop the cumulative war expenditures short of industrial collapse and consequent national bankruptcy, such as terminated the carnival of war and politics that ran its course on the Continent in the sixteenth and seventeenth centuries."[1] His error in this respect may have been exclusively one of timing. Bertrand Russell, who, judged on his record, deserves great respect as a prognosticator, made much the same observation during a televised seminar in the fall of 1958. Increasingly heavy defense expenditures are likely to force each of the democracies to some sort of a controlled economy and to an undesirably different political philosophy. Comments on these problems would be much beyond the scope of this paper and this writer. But there is no harm in recognizing their existence, magnitude, and implications. And an examination of naval industrial activities should show some of the problems—and some of the purported solutions—in microcosm.

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[1] Thorstein Veblen, The Theory of Business Enterprise (New York: Charles Scribner's Sons, 1904), p. 143.

The health problems are of considerable significance. It takes the [illegible] of a professional legal. In a [illegible] [illegible] [illegible]

This paper deals exclusively with the Navy Industrial Fund and primarily with Navy Industrial Fund operations at naval shipyards. For three years before coming to The George Washington University I was on duty at a naval shipyard. Industrial fund financing was just beginning when I arrived. There were many old hands about who regretted the passage of appropriation, allotment, and project order financing. Navy Industrial Fund financing was costly, complicated, unnecessary, and unfamiliar. I was assigned to the Comptroller Department and later to the Supply Department. At one time my duties involved briefing new officers on industrial fund operations; I learned some of the objections that are difficult to answer. I participated in the development of a two-card timekeeping system that was later abandoned. I joined in opposition to a system of average costing labor which was ultimately accepted for general use. I was present when a full-scale electronic data processing installation was put in. In the supply billet, I attended two or three conferences each week bearing on production problems in connection with material procurement and receipt. I had the opportunity to observe at close range the reactions of certain members of top management to industrial fund financing and to the financial reports which it permitted. During these years, I formed opinions about the economy, efficiency, and effectiveness arising from financing a shipyard with an industrial fund.

With this background, I came to the Navy Graduate Comptrollership Program. My year of association with the professors and with the guest lecturers who spoke to the Comptrollership Program confirmed some of my opinions, but led me to modify or abandon others. The guest lecturers were often controllers of the Nation's largest corporations or men from the top levels of governmental finance. Their opinions merited careful consideration.

The opinions I have retained are detailed in this paper. I prefer to regard them as realistic rather than derogatory. Were it not for literary considerations, I would like to prefix every statement with "I believe" or "I think." I am not certain. At best the opinions are only guides as to where the truth may be; the conclusions are only clues as to where solutions may be found. But the reader should have little difficulty in distinguishing fancy from fact, sentiment from scholarship. The more controversial opinions have been checked with officers and civilians who now work at naval activities financed by the Navy Industrial Fund. In all cases there is at least one other person who agrees, but two do not make a majority. The anecdotes are factual.

My information on Navy Industrial Fund operations at commercial-industrial activities other than shipyards—activities such as the Naval Gun Factory, the Naval Clothing Factory, naval printing plants, and the Military Sea Transportation Service—comes from secondary sources. But nothing has been said about industrial fund operations that should not apply to some extent to all activities currently financed by the Navy Industrial Fund. The references indicate that their problems are different in detail but similar in origin.

I am indebted to the previous students in the Navy Graduate Comptrollership Program who have written on various facets of the Navy Industrial Fund. I believe that I have read all of these papers; I have agreed with some and disagreed with others. But no doubt all of them have supplied material which I have used either directly or indirectly.

I am also indebted to many people who are working with some aspect of the Navy Industrial Fund in the Washington area. Without exception they were cooperative in supplying information which I requested. And I want particularly to express appreciation to Miss Elizabeth Haggart, the

librarian at the Bureau of Supplies and Accounts library. A good librarian is always a joy to do business with. In doing research for this paper, it was only necessary to suggest to Miss Haggart what I would like to find, and she would find it. Her supererogatory service was a great help.

M.H.

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CHAPTER I

INTRODUCTION

> To assure continued operation of these [industrial-commercial] activities at maximum effectiveness, efficiency, and economy, to the satisfaction of itself and Congress, it has become expedient for the Navy to adopt business methods.[1]

Background.--Working capital funds for the financing of military industrial activities were authorized by the National Security Act Amendments of 1949. "Working capital funds, sometimes called 'revolving' funds are those funds established with a fixed amount of capital to take care of a manufacturing or service operation which is self-sustaining in nature."[2]

The authorization for the use by the military of such funds was an outgrowth of the first Hoover Commission report. The Commission on Organization of the Executive Branch of the Government was popularly known by the name of a businessman who had managed "to accumulate a competence" operating within the framework of the free enterprise system. And the task forces were composed for the most part of prominent businessmen.

> The Commission's work was "based on the belief that there exists in the United States the kind of government and an economic system which will assure the continuation of political freedom and economic progress. This economic system is based on the fundamental concept of private enterprise--not state-owned and operated industry. The Department of Defense is

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[1] The Navy Industrial Fund Program (Washington: Department of the Navy, Office of the Comptroller, 20 June 1956), Part I, unnumbered.

[2] Lloyd Morey and Robert P. Hackett, Fundamentals of Governmental Accounting (New York: John Wiley & Sons, Inc., 1952), p. 184.

engaged in many business enterprises. It is our belief that all such commercial and industrial activities that can be effectively performed by private industry should be turned over to private industry . . . . Private industry should be able to meet effectively the diverse and fluctuating needs of the Government. Accordingly, Government operation of business-type activities to meet these needs is, in most cases, unnecessary."[3]

Holders of this philosophy in pursuit of their logic could not but conclude that, in those rare instances when Department of Defense operation of a business-type activity was necessary, the operation should be as business-like as possible. The activity should be as much like private enterprise as human ingenuity could make it.

The Commission's report was presented to Congress in January 1949 and contained recommendations for promoting economy and efficiency in the National Military Establishment. On August 10, 1949 Congress passed Public Law 216. Working capital funds were authorized by sections 405(a) and 405(b) of this law.

(a) In order to more effectively control and account for the cost of programs and work performed in the Department of Defense, the Secretary of Defense is authorized to require the establishment of working capital funds in the Department of Defense for the purpose of--
  (1) financing inventories of such stores, supplies, materials, and equipment as he may designate; and
  (2) providing working capital for such industrial type activities as provide common services within or among the departments and agencies of the Department of Defense, as he may designate.

(b) The Secretary of the Treasury is authorized and directed to establish on the books of the Treasury Department at the request of the Secretary of Defense the working capital funds established pursuant to the authority of this section.[4]

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[3]Commission on Organization of the Executive Branch of the Government, Sub-committee Report on Business Enterprises of the Department of Defense (Washington: U. S. Government Printing Office, June, 1955), pp. 1-3.

[4]U. S. 81st Congress, The National Security Act Amendment of 1949, P.L. 216, Aug. 10, 1949, secs. 405(a) and 405(b).

Since 1949, therefore, "inherent in the Financial Management Plan of the Navy is the concept of an increasing utilization of the working capital revolving fund for the purpose of financing the Navy's industrial-commercial type activities."[5]

Implementation.--The Defense Printing Service was converted to industrial funding in 1949. Other industrial-commercial activities were converted on staggered schedules. By 1956 there were forty-six naval activities financed by the Navy Industrial Fund.[6] The annual volume of business of activities chartered under the Fund has grown from approximately 5 million dollars to nearly 1.5 billion dollars.[7]

The Navy handled the transition from appropriation-allotment-project order accounting to industrial fund financing for the susceptible activities with admirable smoothness. Torpedoes were about and no one damned them. In most cases before granting an industrial fund charter to an activity, the situation was fully investigated by representatives from the Office of the Comptroller of the Navy, the Bureau concerned, and the staff of the activity. These men formed a working group which studied the organization, analyzed its problems, and drafted an industrial fund handbook tailored to the activity's requirements. Difficult problems were encountered. Some of them were solved and others remain troublesome to this day.[8]

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[5] The Navy Industrial Fund Program, Part I.

[6] Ibid.

[7] L. W. Haddock, "Proposed Improvements in the Navy's Industrial Fund." Unpublished Professional Paper for Promotion to Commander, Navy Department, Bureau of Supplies and Accounts, Oct. 20, 1958, p. 1.

[8] Cdr. L. W. Haddock's promotion thesis, "Proposed Improvements in the Navy's Industrial Fund," is an astute discussion of technical problems still hampering attainment of some benefits made possible by NIF financing. The discussion is based on the author's experience as Comptroller at the U. S. Naval Ordnance Plant, Louisville, Kentucky. In brief, a variable cost budget should be adopted. [The Bureau of Ships now has the variable cost budget under active consideration]. Such appropriation accounting as remains at

Personnel, both civilian and military, qualified to handle the technicalities of industrial fund financing were in short supply. In certain areas, appropriation accounting then had and now has to be reconciled with industrial fund accounting; an industrial fund activity's customers receive their funds from appropriations and a certain amount of appropriation, project order, and allotment accounting is still required. There were

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NIF activities should be reduced or, if possible, eliminated. Inventories should be combined to simplify inventory management. The accuracy of cost accumulation should be increased by charging sick and annual leave charges as overhead; at the present time these costs are covered by accelerating labor a predetermined fixed percentage. Accruals should be made for the income to be realized from the sale of excess material. Proceeds of scrap sales should be credited to the cost center generating the scrap; no effort is currently made to allocate this income.

Even this lengthy and perceptive dissertation, however, omits many of the technical problems which exist. Since the accounting systems were tailored to each activity, the accounting systems are not in some respects comparable; for this reason, financial reports from similar activities are not in all respects comparable. Free issue materials [materials charged to an end-use appropriation at the time of their procurement], military pay, employee fringe benefits, and depreciation on plant and equipment are not charged to product costs. Thus, a very significant element in total costs is excluded when product costs are computed. Naval industrial activities have capacities based on emergency conditions; what adjustment can be made for the cost of standby capacity? Standard cost accounting systems and engineered work measurement programs would be desirable for naval industrial activities. Experiments with standard costing have been made at the Charleston Naval Shipyard. But valid engineered standards are exceptionally hard to come by in shipbuilding which is one of the most complex of all manufacturing processes. Procedures change with changes in design. Those naval activities manufacturing and testing prototypes obviously present even greater obstacles to the establishment of standards. Standards tend to be historic and none-too-valid or useful. What can be done to separate accurately and uniformly the purely military portion of a naval activity's effort from the industrial portion? What part in dollars and cents of the inventory of an NIF activity is financed by the Navy Supply System. Is adjustment necessary in the interest of accurate costs? Is duplication of effort ever justified in the interest of accurate costs? For example, should a separate supply department financed by NIF be set up at naval shipyards? Any one of these problems could be discussed at length, pro and con.

many other technical problems but they were either solved or circumvented, although not always in an entirely satisfactory manner.[9]

The Navy Industrial Fund Concept.--Conversion to industrial fund financing was authorized by an approved charter for each individual activity. Individual cash allocations to the various activities were made from the corpus of the fund. The initial working capital of an activity was composed of this allocation plus the inventories of materials and supplies which were on hand. After cut-over, this working capital is used to finance the costs of production. These costs are recovered by billing the customers. Collections are made and credited to the cash account of the fund. Billings are made at cost, and ideally no profit or loss would arise from operations. In practice, the overhead required to recover costs can rarely be estimated that precisely. Profit or loss—called over-absorption or under-absorption—is carried forward and burdens or benefits future customers.

The industrial fund is not subject to quarterly or annual limitations. Materials and supplies can be procured to meet the requirements of orders on hand. There are no compelling financial reasons for stock-piling inventories or for expending funds about to expire on 30 June. The capitalization is adequate to finance increases in workload on an interim basis, and

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[9]Much more complete discussions of the problems attending transition to Navy Industrial Fund financing are contained in: Robert J. Duryea, "The Navy Industrial Fund at the U. S. Naval Gun Factory." Unpublished Paper prepared for the Navy Graduate Comptrollership Program, The George Washington University, 1956, pp. 7 - 19; G. L. Countryman, "New Comptroller System Introduced in Shipyards," The Bureau of Ships Journal, August, 1953, p. 23; and E. Scott Tilley, "Use of Working Capital Funding by the Navy's Bureau of Ordnance," The Controller, August, 1953, p. 374.

provision has been made to modify capitalization in accordance with requirements.

> Each type of industrial fund activity shall have cost estimating and cost accounting systems specifically designed for its operations. Wherever appropriate, the cost accounting system shall employ standard-cost methods rather than methods which are designed solely in terms of historical costs. In appropriate cases, the cost accounting system may be a job order cost system, a process cost system, or a suitable combination. In any case, the cost accounting system shall be integrated with the general accounting system, which shall observe the accrual basis of accounting and employ the double-entry method of bookkeeping.[10]

The cost of products and services includes direct material, direct labor, other direct costs, and operating and administrative overhead. The costs of military pay and depreciation are excluded; a statistical estimate of these costs is sometimes made for information purposes.[11]

The Navy Industrial Fund concept involves financing industrial-commercial naval activities in a manner similar to that used by private industries of comparable size. The general accounting system is the double entry, accrual type. An appropriate cost accounting system is superimposed on the general accounting system. Ipso facto, for all practical purposes, a free enterprise business has been set up. Circumstance unfortunately dictates that it be government-owned. But in theory there are no reasons why the economy, efficiency, and effectiveness of which American business is justly proud cannot be achieved; in fact, no reasons why economy, efficiency, and effectiveness will not inevitably result.

This is rather like saying that two men sitting in identical chairs are identical men. After some effort, perhaps inconclusive, to establish

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[10] Regulations Governing Industrial Fund Operations, NavCompt Instruction 7630.1A (Washington: Department of the Navy, Office of the Comptroller, 29 August 1958), p. 14.

[11] cf. The Navy Industrial Fund Program, Part I, Sec. III.

that the men are not identical, this paper will consider some of the reasons why they are not.

CHAPTER II

CLAIMS AND REALITIES

> It must be kept constantly in mind that the installation of industrial and commercial type activities is no guarantee of their successful operation.[12]

Claims.--The claims that were made for industrial fund financing after its inception were at least equal to the beautiful dreams that attended its conception and the glowing predictions that accompanied its implementation. There were detractors about, but they were seldom heard. On the other hand, the Fund's proponents had little difficulty finding a medium for the promulgation of their approval. Many songs were sung in praise of the Navy Industrial Fund that could just as reasonably have been sung in praise of motherhood, brotherhood, unity, or cooperation.

> Probably the highest single factor where savings will be realized for sometime under NIF will be in the material field . . . off-yard procurements are given more consideration in terms of definite requirements . . . the possibility of substitutions of one item for another to effect cost savings is being considered more favorably by stub originators resulting in material economies.
>
> The vehicle provided by NIF for accumulating material in DMI has permitted stocking of materials which heretofore created production bottlenecks . . . "kitty" material has been substantially eliminated by inclusion in the shop store inventory.
>
> Acid pickling of STS steel plates, in lieu of sandblasting is expected to save the Shipyard $119,000 . . . . The Shipyard saved approximately $17,500. through the elimination of unnecessary forms and reports.
>
> The Navy Industrial Fund budget by directly relating costs to cost classes under the immediate cognizance of the Cost

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[12] Assistant Secretary of Defense (Comptroller) as quoted in The Navy Industrial Fund Program, Part II, Chart 8.

Center supervisor, makes it possible for that individual to maintain control over practically all costs in his cost center, a control which is a necessary collateral to the concept of cost consciousness . . . . Since the inception of the Navy Industrial Fund, materials on hand in the various shops in the amount of $598,392,000. . . . have been recorded as an asset of the Navy Industrial Fund. This development has intensified the control of material and should greatly reduce the material losses that invariably result from pilferage, damage, misplacement, and obsolescence.

The use of an accounting system similar to that used in private industry is making our financial systems more dynamic in that they can now be patterned after systems and procedures being continuously developed in this professional field.

Not only can timely retrenchment be effected but the application of NIF cost accounting principles makes possible the recognition of the areas of possible retrenchment more clearly and the judging of maximum possible reductions more precisely and safely, thus stimulating a consciousness of costs on the part of management, with a corresponding motivation to cut costs.

Management has been encouraged to evaluate progress under the Industrial Fund system of accounting in such areas as dollar-saving, improved efficiency of operations, cost control, and flexibility of operations.[13]

Even during this early period of high hopes, however, some discordant notes of caution crept in:

It behooves us to move among a lower echelon, the employees who are the middle management group of activities where N.I.F. has been introduced and observe their reactions . . . . Some of their comments are paraphrased thus: . . . . Results of today's operation which management receives a week later are about as informative as a week-old newspaper . . . . Many reports have to be submitted to management bureaus, but do the bureaus know what to do with them? They have no control over the funds except to the degree of their participation as customers, yet they insist on lengthy and expensive reports . . . . Sometimes the workload fluctuates excessively. If the reduced demand is announced by the customer well in advance, management can plan ahead. But if it is on short notice, layoffs take time . . . . This system will never be less expensive and require fewer personnel if two systems (appropriations and N.I.F.) are superimposed. They are not compatible . . . . If a quantity item becomes a specialty item, because of very reduced uses as a result of new techniques and advances, the continued use of facilities and personnel becomes an expediency rather than a dollar-wise program . . . . If you

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[13] "Selected Excerpts from Management Comment Concerning Operations under NIF," as quoted in The Navy Industrial Fund Program, Part IV.

can go out and seek government business (as some N.I.F. activities can) you fare much better than if you must wait and have the business sent to you.[14]

As management became more familiar with financial and cost information developed through the system, it was realized that a wealth of information was available that was not used to the fullest extent during the first years' operation.

The first year of experience did not result in measurable industrial dollar savings in the cost of production. Under the industrial management concept the foundation has been laid whereby definitive management control programs can be installed.[15]

The plain truth seems to be that more was expected from and claimed for industrial fund financing than could be achieved by any change in budgetary and accounting procedures.

An issue has several times been made of the fact that many of the things accomplished under the industrial fund could have been done without it. In some cases, full accruals for instance, this is true in the sense that other enabling legislation would have been possible. In other cases, the double entry technique for instance, the reform could possibly have been accomplished by directive within a military department, or within a technical service. However, these desirable things had not come about prior to the availability of the industrial fund chartering. The industrial fund is simply one way of effecting these changes, and it is a presently available way of doing the long postponed job.[16]

Realities.--Efficiency which is defined as "effective operation as measured by a comparison of production with cost in energy, time, money, etc.,"[17] and effectiveness which is defined as "efficiency,"[18] are difficult to measure. But it seems likely that they can be influenced by many

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[14] Leonard M. Culjat, "The Navy Industrial Fund." Unpublished paper prepared for the Navy Graduate Comptrollership Program, The George Washington University, January, 1957, pp. 22-24.

[15] "Selected Excerpts from Management Comment Concerning Operations under NIF," as quoted in The Navy Industrial Fund Program, Part IV.

[16] U. S. Department of Defense, Report of The Industrial Activities Working Group. A report prepared for the Advisory Committee on Fiscal Organization and Procedures. (Washington: Office of the Secretary of Defense, July, 1954), p. 51.

[17] Webster's Collegiate Dictionary (5th ed.; Springfield, Mass.: G & C. Merriam Co., 1954), p. 318.

[18] Ibid.

factors other than the methods of financing, budgeting, and accounting used.

Economy, on the other hand, which is defined as "thrifty administration, often retrenchment in expenditures, strict husbanding of resources,"[19] can be estimated in dollars. The overhead rates of naval shipyards since they adopted industrial fund financing have been tabulated. The composite overhead rate is an amount which, when applied to direct labor hours, is calculated to recover the cost of general and administrative expenses and indirect manufacturing costs. The figures shown in Table 1 at least suggest that industrial fund financing has not automatically produced economy.

It may be that some naval industrial activities have done better than the shipyards. But it would be an intelligent guess that those which produce prototypes have been unable to hold overhead costs down.

In spite of the achievements which must be described as falling short of the predictions, the purposes and objectives of industrial funds remain the same.

Industrial funds are designed to:

1. Provide a more effective means of controlling the costs of goods and services required to be produced or furnished by industrial- and commercial-type activities, and a more effective and flexible means for financing, budgeting, and accounting for the costs thereof (however, the establishment of an improved accounting system is not by itself a purpose justifying the installation of an industrial fund);

2. Create and recognize "buyer-seller" relationships between industrial- and commercial-type activities and those activities which budget for and order the end-products or services, in order to provide management advantages and incentives for efficiency and economy;

3. Provide to managers of industrial- and commercial-type activities the financial authority and flexibility required to procure and use manpower, materials and other resources effectively;

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[19] Ibid., p. 316.

[illegible] [illegible] [illegible] [

TABLE 1

COMPOSITE ACTUAL OVERHEAD RATES--U. S. NAVAL SHIPYARDS

Shipyard	First Month of NIF Operation	June 1956	January 1959
Portsmouth	$1.78[a]	$1.91	$2.98
Boston	1.84	1.79	2.92
New York	1.77	1.78	2.64
Philadelphia	2.20	2.03	3.02
Norfolk	1.68	1.91	2.59
Charleston	1.91	1.94	2.97
Long Beach	1.60	1.80	2.82
San Francisco	1.58	1.89	2.57
Mare Island	1.73	2.08	3.40
Puget Sound	1.44	1.64	2.75
Pearl Harbor	1.97	2.17	2.44[b]

[a]The figures, which were taken from the monthly financial statements submitted by the shipyards, were supplied by the Office of the Comptroller, Bureau of Ships.

[b]In the interest of truth and accuracy, it should be pointed out that the figures are not completely comparable among shipyards or among periods for the same shipyard. Various technical changes have been made in accounting procedures at each of the shipyards. In some instances costs once charged directly to jobs are now charged as overhead. The table should not be construed to mean that NIF financing contributes to increasing costs. Nor should the figures be taken to indicate waste and a disregard for costs on the part of the Navy. There have been three increases in Civil Service pay during the period covered. The purchasing power of the dollar has declined four percentage points. Everyone is aware that the costs of most military equipment have gone up. The work of naval shipyards is growing more complex rapidly, and this fact, of course, necessitates increased overhead expenditures. Mare Island, for example, is now building nuclear Polaris boats. The figures are used only to illustrate that industrial fund financing does not produce economy magically and certainly.

4. Encourage more cross-servicing among the military departments and among their operating agencies, with the aim of obtaining more economical use of facilities;

5. Support the performance budgeting concept by facilitating budgeting and reporting for the costs of end-products, and thus underlining the cost consequences of decision making, including choices between alternatives in such terms.

Specific objectives, when industrial funds are used, include the following:

1. To furnish managers of industrial- and commercial-type activities with modern management tools comparable to those utilized by efficient private enterprises engaged in similar types of activities;

2. To provide an incentive for managers of industrial fund activities to improve cost estimating and cost control through the use of cost standards by requiring a contractual relationship between producers and ordering agencies;

3. Require alert, forward-looking financial planning at industrial- and commercial-type activities by making them dependent financially on reimbursements received for goods and services furnished in fulfilling orders from customers;

4. Impel producers of goods and services to control costs in line with workloads actually generated by customers'orders, varying the labor force and inventories accordingly and avoiding the tendency to maintain a labor force and inventories without regard to fluctuations in workload levels, taking into consideration the prescribed wartime capability requirements;

5. To coordinate the financial aspects of detailed estimating and planning for job performance in terms of material requirements and labor operations, production scheduling and control, and procurement and inventory control, with budgeting and cost control;

6. To establish and use realistic cost standards as targets rather than detailed cost limitations;

7. Require order agencies to budget, control and account for the cost of all goods and services ordered, rather than allow them to obtain free goods and services; this requirement is designed to instill in the officials of these agencies a greater sense of responsibility and self-restraint in limiting their orders, and balancing the cost of specific goods and services to be ordered against the benefits and advantages of their procurement, especially in the light of alternative or competing demands;

8. To place ordering agencies in the position of critic of purchase prices (i.e., costs of performing activities) as well as quality

and delivery-speed of goods and services ordered in consideration of relative costs of similar performing activities and outside agencies;

9. Provide meaningful bills to ordering agencies, clearly relating the goods and services furnished by a performing activity to the charges rendered, causing the ordering agencies to assess their procurement practices and specifications in full awareness of the costs involved;

10. Enable ordering agencies to budget and account on an "end product" basis (the same as when buying from commercial contractors), simplifying budget presentations, budgetary control, and accounting procedures for both producers and ordering agencies;

11. To establish, wherever feasible, predetermined prices (tariff schedules, price lists, fixed-price orders) for goods and services furnished by industrial fund activities, thus setting standard prices on performance enabling ordering agencies to plan and budget more confidently;

12. To encourage management of ordering agencies to improve program planning and scheduling, in response to producers' efforts to negotiate for orders as far in advance as possible.[20]

Of these objectives, only the first has been achieved beyond equivocation. It is doubtful that the most die-hard proponent of appropriation, allotment, and project order accounting would now contend that industrial fund financing is not an improvement. Industrial fund financing does provide a more effective and flexible means for financing, budgeting, and accounting for costs at industrial and commercial type activities. The figures themselves may not indicate economy, but they are being compiled economically. And there is a great deal to be said for accumulating the costs as accurately and efficiently as possible. The picture may be unpleasant, but it is more likely to be a true one.

A very large proportion of accounting for Defense Department activities is at present on the single entry method. Single entry is simply incomplete accounting in that it fails to recognize the

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[20] Regulations Governing Industrial Fund Operations, pp. 2-4.

> basic double effect of every business happening. This is the really significant criticism of single entry—by seeking to be simple, it is incomplete and thus very often fails to portray the business situation in a way that is truly useful to management . . . . It so happens that the industrial fund chartered operation is a "natural" for double entry accounting. In the long run, this may prove to be the greatest advantage of the industrial fund technique for it helps to establish the climate in which full portrayal of management data is easy to achieve. Of course, double entry is possible without the formal machinery of the industrial fund charter but experience to date has shown that it tends to come very slowly in Defense industrial activities without some such incentive.[21]

A careful reading of the other purposes and objectives indicates that a disproportionate number of them are dependent upon the establishment of a genuine buyer-seller relationship between naval consumers and producers. They are statements and restatements, variations on a theme, of the benefits that can arise from the relationship. But only the roughest approximation of a true buyer-seller relationship has as yet developed between naval consumers and producers. And there are good reasons why such a relationship may never develop to the extent envisaged:

> Considerable debate has been devoted to the possibility of developing an effective buyer-seller relationship as a control device through the use of the industrial fund. Proponents have overdone this argument. There are some restricted circumstances, in which the Defense Department "buyers" have real freedom and in those cases, the buyer-seller psychology may be useful. However, to a considerable extent the buyer is a captive, as for instance, the Bureau of Ships in obtaining its overhauls, or the Air Force in providing major repairs for its planes. These "customers" have no real chance for freedom of source of supply and here the buyer-seller relationship is theoretic in the extreme.[22]

Of the purposes and objectives which are not dependent on a buyer-seller relationship, some have been achieved intermittently, others may be

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[21] Report of the Industrial Activities Working Group, p. 22.

[22] Ibid., pp. 49-50.

achieved, and still others will never be achieved. Why? Because--to state tersely what will be elaborated--no matter how much a military activity may resemble a business, there are basic differences. Captain E. H. Batcheller, U.S.N., the Comptroller of the Bureau of Ships and a former production officer at a naval shipyard, went right to the heart of the matter when he said:

> One thing has been very hard to get across to civilians and especially to Congressmen. A shipyard may resemble a civilian business--the civilian committees have thought so--but it is not, and it will never be in certain vital respects the same. The primary considerations are military considerations: meeting schedules, doing work that meets and betters military specifications, making technological changes to fulfill new military requirements. In the very nature of things, cost is not the primary consideration.[23]

Financial considerations are not the only considerations which influence military decisions. Frequently the military must trade dollars for time. There are also tactical and political factors which profoundly affect military decisions.[24]

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[23] Interview with Captain E. H. Batcheller, U.S.N., Comptroller of the Bureau of Ships, March 16, 1959.

[24] Lecture by Professor Clewlow, Navy Graduate Comptrollership Program, The George Washington University, March 18, 1959.

CHAPTER III

THE NAVY INDUSTRIAL FUND AND THE MILITARY MIND

> What sets off this particular sort of manager from executives of other types of enterprise is not really the uniform or the salute, the little ceremonies and trappings, or the specilized vocabulary. Business (to a greater degree than it might care to admit) has its equivalents of all these. The essential difference lies in the responsibility of the military manager, whatever his rank. That responsibility is simply—and totally—the safety of the U. S., a weight nowadays enough to stagger an Atlas. When it comes to defining that weight in dollars, the military mind often looks maddeningly inexact, if not wildly irresponsible.[25]

In 1954 the Industrial Activities Working Group—a group made up of businessmen, business administration professors, and management consuntants—undertook a study of the organization, responsibilities, principles and procedures of Department of Defense industrial establishments. In their exceptionally comprehensive and perceptive report, they stated that as a result of their visits and background studies it was clear that the predominant need was that of genuine industrial leadership.[26] They may have been right at the time. Such a statement would not be justified now, not, at least, so far as the Navy is concerned. Close and reasonably objective observation indicates that the Navy has found, within the ranks of its military and civilian personnel, industrial leadership of the very highest order. The men chosen to command the Navy's industrial activities and the men chosen to serve as comptrollers compare favorably with the comptrollers from big business who

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[25] "The U. S. Military Mind," Fortune, February, 1952, p. 93.

[26] Report of the Industrial Activities Working Group, p. 12.

have lectured to the Navy Graduate Comptrollership Program. The Navy has (what is to some) a surprisingly large number of men who can comprehend the intricacies of double entry bookkeeping, of job or progress cost accounting, of budgeting, and of balance sheets and income statements. In other respects, industrial leadership is not really different from military leadership which is not itself strikingly different from leadership.

The Navy has wisely followed the policy of making comptrollers for engineering activities from engineers, comptrollers for aviation activities from aviators, and comptrollers for ordnance activities from ordnance men.[27] Thus good industrial leaders have been obtained and they have been obtained at bargain prices.

But having written the kudos in all honesty, sincerity, and objectivity, it is necessary to add a few provisos to qualify the praise. Not everyone would consider the Navy's current industrial leadership as "good" or even adequate. The principal reason they would not has been mentioned before: at military industrial activities, cost considerations are seldom paramount. The officers' fitness report form has provided for the rating of each officer

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[27] The writer is not prepared to say that the Navy's Supply Corps officers are not potentially brilliant industrial leaders. But he believes, for example, that the Navy is likely to have better success in indoctrinating engineers with an appreciation of accounting than accountants with an appreciation of engineering. Supply Corps officers should make the best comptrollers for any activity that is not engaged in a specialized productive operation and for supply activities. This is based on the belief that accounting is not as esoteric as accountants would have laymen believe. But the matter is highly controversial, and the Industrial activities Working Group seems to have disagreed. On page 64 of their report they state: "The Navy's practice of appointing E.D.O. officers as comptrollers is an interesting device attesting to the fact that the Navy simply has no one really trained for the job. It is the Navy's hope that the sheer high calibre of these men may make up for their lack of specific training. Some of them will doubtless do respectable jobs by a judicious combination of rapid learning, frankly leaning on their civilian deputies, and pure good judgment. This is not, however, the pattern which any of the services should follow." Nevertheless, the first prerequisite of a comptroller—in the broadest, grandest sense—must surely be a thorough understanding of the technical aspects of the industrial or commercial activity which he is serving.

on a quality called "cost consciousness." But the fact remains that to date the personal success or failure of an officer has not been determined by his success or failure in controlling costs.

> It is not that the officer is contemptuous of the dollar, of which he is paid so few, and on which he shells out taxes like anyone else. So far as military economy involves the most guns or the most shoes at the lowest possible unit costs, the officer reacts like any corporation manager. But he is involved in scheduling not only production but also consumption and he dare not underestimate.[28]

In order to avoid failure as the "president" of one of the Navy's industrial-commercial activities, a naval officer must have qualities that do not often occur in combination. When they do occur in combination, they usually sell for about $100,000. per year plus bonuses, stock options, and expense accounts. The activity commander must be an expert on the productive operation which he is directing. Shipbuilding is among the most complex of all productive processes, and one would hesitate to describe the current work of ordnance enterprises as simple. Since the Navy has long had men working in these activities, officers with the requisite technical skills are not impossible to find. But the commander must also be an administrator of extraordinary skill; his span of control will probably encompass ten department heads.[29] These department heads are likely to be dynamic, ambitious, capable men themselves, and at least four of them will have frequent, urgent, major problems which require the commander's attention. As a practical matter, shop masters must often be included in the commander's span, and this increases the complexities, let us say, substantially.

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[28] "The U. S. Military Mind," Fortune, February, 1952, p. 93.

[29] Standard U. S. Naval Shipyard Regulations, BuShips Instruction 5450.14A (Washington: Bureau of Ships, Navy Department, 18 March 1958), p. II-3.

When activity commanders preside over conferences with shop masters, the impression is one of a Commonwealth conference. Almost without exception, shop masters are men of great ability, men who know their jobs and know they know them; they are not Milquetoasts and they are not anxious to make changes in familiar and proven procedures; in their shops they are often autocrats; in conference they are not shy. Activity commanders need human relations skills. In addition, an activity commander should be a public relations man with a deft touch; it is well if he can deliver sincere speeches with confidence and assurance. And, within the limitations imposed on military personnel, he must be a politician; in fact, he could use the skills of which Machiavelli dreamed.

From men with such qualifications, the Navy has selected its industrial leaders. Perhaps it is not too surprising that these men have not always been experts on finance, accounting, cost accumulation, and cost control. The reason they are not experts, and the reason they do not pay more attention to the men who are, can be found in the circumstance that cost control has rarely, if ever, been among the principal criteria of military success.

Many commanding officers (not necessarily of industrial-commercial activities) have made their reputations in peacetime by cleaning up stations, erecting new buildings, improving material conditions, devising new procedures, developing or improving military equipment, getting somewhere faster. Where is the naval officer whose reputation rests securely on cost cutting? There may have been one or two such men around the Pentagon in the days of Louis A. Johnson, of blessed memory, but they have, no doubt, been exiled as traitors by now. Naval officers are judged by their accomplishments and these accomplishments are seldom costed.

This can be illustrated by a story in which an admiral takes pride. The admiral was once depressed by aging quonsets at his command. They were, in his sight, obscenities. He asked his public works officer what could be done, and the public works officer said they could be painted. The admiral replied that paint would never solve a problem of such gravity, and he asked, "Why don't you shingle them?" The public works officer replied that quonsets were never, in his experience, shingled. The admiral says he said, "Damn it! I said shingle those quonsets!" In due course, the quonsets were shingled. In point of fact, this admiral has unquestioned and unquestionable military merits, but cost consciousness is not among the more conspicuous.

In the case of the commanders of industrial-commercial activities, it is well that cost is not the primary consideration. If under prevailing conditions it were to become so, the conscientious commander would inevitably break down from frustration or despair.

CHAPTER IV

THE NAVY INDUSTRIAL FUND AND THE ACTIVITY COMMANDER

> Responsibility for financial management is centralized in the activity commander at the activity level.[30]

The foregoing quotation may well be an accurate statement of the theory. There is no doubt that an activity commander, if he wishes to make the disproportionate effort, can control the number of pencils consumed, the amount of carbon paper used, and perhaps even the number and types of electronic data processing machines installed. In regard to the vital factors necessary to anything that could truly be labelled "financial management," however, the activity commander's authority is either insufficient or nonexistent.

Only in rare instances can he affect the amount and type of production. His ability to influence the selection, placement, and retention of his top management personnel is restricted. He is unable to adjust employment levels to production levels as rapidly as economy and efficiency would dictate were they the only considerations. Military procurement and expenditure regulations interfere seriously with his control over material costs. The president of a civilian corporation who found himself unable to influence production, to hire and fire personnel, and to use judgment in an attempt to control material costs would regard his "responsibility for financial management"as somewhat attenuated.

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[30] The Navy Industrial Fund Program, Part I, Sec. III.

> Assignment of a responsibility to an individual entails his assuming the duty to carry out the action necessary to his accomplishment, within the framework of relationships, structure, policy, and procedure obtaining in the situation. Performing the responsibility requires not only acceptance by the individual but also requires recognition and support by those with whom he must deal in fulfilling his task. This principle is commonly put thus, "Each assignment of responsibility requires corresponding delegation of authority."[31]

The truth is that responsibility for financial management has not been and cannot be centralized at the activity level. Some of the authority absolutely requisite to financial management has been retained in Washington.

Control of Production.--The amount and type of production for naval industrial-commercial activities is determined at bureau or higher levels. There are, of course, rare, isolated instances in which activity commanders have been able to modify their workloads. The Naval Gun Factory searches for and finds work to keep its lens grinders in business.[32] Shipyard commanders have on occasion bid competitively for windfall work--work arising from unplanned boiler explosions aboard Coast Guard vessels. Obviously these are the exceptions; their over-all influence is negligible.

It has happened more often that an activity commander has learned of his ensuing workload for the first time by reading the newspaper. He finds it announced there by the senators or representatives who represent the states or districts where his employees live.

It happened once that a senator obtained an important amount of new construction for a naval shipyard "simply by going in and asking." The senator remarked to the reporters that since it was so easy to get this new construction for the yard out of the Navy, one might as well try for some

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[31] Mary Cushing Niles, The Essence of Management (New York: Harper & Brothers, 1958), p. 189.

[32] Lecture by Captain Bewick, U.S.N., Comptroller of the Naval Gun Factory, at The George Washington University, December 9, 1958.

more. The budget division and others at the shipyard involved could only hope that the senator would keep them informed.

This incident emphasizes that the workload at naval industrial activities is determined by political, economic, and military considerations. The decisions are made at the highest levels. Apparently production costs are not primary determinants. The decisions are not made--and, in fact, can rarely be influenced--by the activity commanders.

Control of Personnel.--Perhaps it is shocking to suggest that a military commander does not have control of personnel. He can tell the people assigned to him what to do and they will do it; in that sense, he does have control. But if he is a reasonable man he will not tell them to transcend their abilities. And, subject to minor exceptions, he cannot dictate who will be assigned to him; in this sense, he does not have control.

There are no reasons why an activity commander must tolerate out-and-out incompetents among his top management personnel. There are, however, reasons why he must tolerate men whom he might not choose for his top management team had he free choice. There is some question whether the Navy's assignment and rotation plans for military personnel and civil service procedures result in placing the best available men in the top jobs. The activity commander must live with these facts of life. Military personnel rotate; a successful production officer will move on after four or five years on the job; theoretically, this is in the interest of the production officer and of the Navy. Top civilian personnel are frequently old-timers with thirty or more years at the activity. Often they are excellent men who provide the continuity which would otherwise be lacking. But sometimes they are not. In all cases they are difficult to dislodge short of retirement. These factors cause naval industrial-commercial activities to differ from civilian enterprises of comparable size more than might be expected.

Some of the lecturers to the Navy Graduate Comptrollership Program have given an indication of the exact extent and importance of this difference. John Van Pelt, a management expert, and now Vice President, Treasurer, and Comptroller of Vulcan Materials, indicated the extreme care which Vulcan Materials exercises in appointing a man to a management position. Top management personnel often serve an apprenticeship of three or four years with an "acting" designation before being appointed to a top job. This is the case even though the man has been with the company for many years, because "once in, he is very hard to get out. Vulcan Materials wants to be certain that the man is right for the job."[33] Three or four years is, of course, the typical length of a naval officer's tour in a top management job at a naval industrial activity.

Daniel Moulton of the Budget Division of General Electric spoke of Mr. Cordiner's emphasis on having the right men in top management jobs. This has resulted in not infrequent transfers and firings in the upper echelons of management at General Electric.[34] Top management can be shifted or removed at a naval industrial activity. But Civil Service regulations are such—and local and state politics are such—that an activity commander might well find the benefits less than commensurate to the effort.

Military top management personnel are transient and Civil Service top management personnel are static. These facts place naval industrial activities at a disadvantage in comparison with their industrial counterparts. And they give a partial explanation of one of the findings of the Industrial Activities Working Group: "Too many people were assigned to management jobs for which they were not qualified by training and experience."[35]

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[33] Lecture by John Van Pelt to the Navy Graduate Comptrollership Program, The George Washington University, March 19, 1959.

[34] Lecture by Daniel Moulton to the Navy Graduate Comptrollership Program, The George Washington University, February 5, 1959.

[35] Report of the Industrial Activities Working Group, p. 63.

The problems in connection with per diem employees, IVB personnel, and middle management military personnel are similar. The per diem employees in the aggregate, however, present some additional difficulties. Decisions regarding employment levels are made by the naval bureau having management control of the industrial activity. Sudden changes in military technology, strategy, and tactics continually necessitate adjustments in the workloads of industrial activities. The launching of Sputnik I is an example of the sort of thing that can change military plans quickly. But decisions to reduce or increase the manning levels at industrial activities lag—often unconscionably—the decisions concerning workloads. As a result, all too often individual activities are not operating at an employment level which approximates the optimum. There are good reasons why such must be the case, but no one would argue that the situation acts to reduce costs.

The situation does in fact lead to events such as the following: The budget director at an industrial activity where the applied overhead rate was failing to absorb expenses once suggested, with as much seriousness as cynicism, that they hire more direct labor employees. He admitted that there was no work for them to do and they would just stand around the waterfront. But if they were employed it would be unnecessary to raise the overhead rate since there would be more direct labor hours to which the old rate could be applied. And, after all, the overhead rate had been premised on an increase in workload which had been promised but which had not materialized. Not all features of industrial fund financing are always conducive to lower costs.

Increases in manning levels are not impossible to bring about. The recruiting mills grind slowly and it is no easy matter to find the skilled personnel needed by naval industrial activities. But the increase can usually be accomplished in a satisfactory manner in good time. Reductions in

force present the real problems. They are always matters of political interest. The activity commander is likely to find himself in a vortex of rumors, counterrumors, charges, and countercharges. Some of them emanate from Washington. If the reduction in force cannot be avoided, it will eventually come about. Not, however, before the activity commander's skill as a public relations man has been tested, and not before the delay has cost many dollars. The fact that the discharge of a GS-3, using the time-tested technique of abolishing his job, was once the subject of intense senatorial interest should indicate the magnitude of the problem.

It is worth noting specifically that although veterans' preference in civil service employment may be justified, it cannot be justified on the basis that it leads to optimum utilization of available personnel.

The president of a civilian enterprise, who would probably have his problems with the unions, would still find the position of the commander of a naval industrial activity intolerable insofar as the control of personnel is concerned.

Control of Material.--Everyone knows that material costs have been rising. Not everyone knows that a naval activity commander is in a singularly poor position to control his material costs. It may be that the regulations which hamstring him are all for the best, but they certainly make it impossible for him to operate in the manner common among civilian businessmen. At the moment, for example, he cannot be stockpiling steel at a rate which a civilian manager might deem desirable. Much of his steel inventory is financed by the Navy Stock Fund. Navy Stock Fund expenditures are controlled at levels above the activity level--by Congress, by the Bureau of Supplies and Accounts, by a Supply Demand Control Point. Since issues are made from the Navy Stock Account at replacement cost, there is nothing an activity commander can do to hold these costs down. If the material is available in

the Navy supply system, the activity commander must use it; and the Navy supply system does not always provide the most economical source for an item. The activity commander gets part of his inventory financed by outside funds, e.g., the Navy Stock Fund, and he pays the going rate when he uses the material.

When material is procured for the direct material inventory (DMI) with Navy Industrial Fund money, an activity commander's position is closer to that of his civilian counterpart; the inventories of both are limited by the working capital available.

For better or for worse, an activity commander must abide by all governmental procurement regulations. These may make for honesty in procurement and theoretically for the lowest cost. They also slow down the procurement process which, in turn, can lead to costly material expediting or even costlier losses of time.

There are things which an activity commander can do to control his material costs, and there are things which he cannot do. Both areas should be identified and recognized. The action that can be taken to control material costs is dependent on whether costs are, in fact, the paramount consideration in military production. If the answer is "yes," and if the affirmative answer comes from a sufficiently exalted level, material costs can be controlled more completely than they have been to date. But if other considerations take precedence—and they may legitimately because the safety of the United States is at stake—then the control of material costs will continue to leave something to be desired. At the present time, the activity commander is not free to control these costs.

There are other factors which cannot be controlled by an activity commander which also tend to increase costs. For example, the customers of

industrial-funded activities are themselves financed by appropriations. Expenditure limitations have been forced on these customers by executive order. The executive order came about because the debt ceiling was about to be violated, but the expenditure limitations continued after the crisis passed. The amount authorized in an appropriation is available for expenditure only in increments. This necessitates the stretch-out of work which could otherwise be completed more quickly. The cost of these stretch-outs cannot be estimated, but there can be no doubt that it is very substantial.[36]

In the nature of things, the commander of a naval industrial activity has inadequate control over production, men, and materials. Control of production, men, and materials is essential to financial management. The assertion that responsibility for financial management has been centralized in the activity commander is not in accordance with the facts. It cannot be in accordance with the facts until some far-reaching changes are made to increase the activity commanders' autonomy. And other considerations make it unlikely that the necessary changes will ever be acceptable.

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[36] Interview with Captain E. H. Batcheller, March 16, 1959.

CHAPTER V

THE NAVY INDUSTRIAL FUND AND THE COMPTROLLER

> Generally speaking the importance of the comptroller in the industrial establishment of the Defense Department is not appreciated and his role is not understood. One industrial commanding officer remarked that, "no comptroller is going to control me."[37]

Complementary Concepts.--Comptrollership in the Department of Defense was established by the National Security Amendments Act of 1949. This was also the act which authorized the use of industrial funds for financing industrial-commercial type activities of the Department of Defense.

Section 401 of the act prescribed that:

> There is hereby established the Comptroller of the Department of Defense. The Comptroller shall establish and supervise the execution of principles, policies, and procedures to be followed in connection with organizational and administrative matters relating to:
>
> i.) the preparation and execution of budgets
>
> ii.) fiscal, cost, operating and capital property accounting
>
> iii.) progress and statistical reporting
>
> iv.) internal audit, and policies and procedures relating to the expenditure and collection of funds administered by the Department of Defense.[38]

Section 402 prescribed that:

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[37] Report of the Industrial Activities Working Group, p. 15.

[38] P.L. 216, Sec. 401.

> The secretary of each military department shall cause budgetary, accounting, and statistical reporting, internal audit and administrative structure and managerial procedure relating thereto in his department to be organized and conducted in a manner consistent with operations of the Comptroller of the Department of Defense.[39]

> In his memorandum setting forth "Comptroller Functions and Organization," the Secretary of Defense expanded upon these responsibilities and specified them in more explicit detail. He added the supervisory responsibility with respect to disbursing and receiving cash; the implementation of working capital funds; and statistical and progress reporting including the analysis and interpretation of reports. He specifically referred to various types of accounting--appropriation, property, and cost accounting--as well as to all phases of budget administration. This prescribed array of activities is almost exactly comparable to the "standard" functions of the business controller, excepting only the inclusion of cash disbursing and receiving which are normally the responsibility of a business treasurer.[40]

As a result of the act and of the memorandum, some naval industrial activities were being equipped with comptrollers at about the time they were transferring to industrial fund financing. In other cases, a comptroller was established before the transition of industrial fund financing.

> In April 1952, the Philadelphia Naval Shipyard established a Comptroller Department and concurrently began operations under the Naval Industrial Fund. . . . The former Fiscal Department became the Accounting and Disbursing Division of the new Comptroller Department. On 1 July 1953, the Charleston Naval Shipyard, with a newly established Comptroller Department, cut over to industrial fund operations. . . . Norfolk and other yards are scheduled to shift subsequently. The date on which each yard will change over depends to a large extent on the availability of funds, the ability to obtain competent staffing, the rate at which indoctrination and training can proceed, and the completion of preliminary panel surveys. Comptrollership operation is more than a new system of accounting. In addition to the Accounting and Disbursing Division, formerly the Fiscal Department, the organization of the Comptroller Department provides for an Internal Control Division, an Administrative Division, and a Budget and Statistics Division. . . .

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[39] Ibid., Sec. 402.

[40] Frederick C. Mosher, Program Budgeting: Theory and Practice (New York: Stratford Press Inc., 1954), pp. 223-224.

> The advantages cannot be realized without certain inevitable factors . . . additional personnel are required. There may be a reluctance on the part of existing departments and shops to accept any change in long established procedures. . . . These attitudes can be overcome by education and indoctrination in the new system. . . . The problems confronting a new comptroller include many which cannot be visualized before duty is actually assigned. . . . The answers to these problems cannot be found in manuals, handbooks, or directives. The difficulty in obtaining qualified top bracket personnel within the classifications of 1949 is as serious in the field of accounting as it is in the engineering field. . . . However, regardless of disadvantages or problems, real or imaginary, Industrial Fund operation is now a statutory requirement and will necessitate yard adjustments in operations to conform to the comptrollership system.[41]

Identical Difficulties.--Naval industrial and commercial activities have had comptrollers for at least five years. Insofar as the basic functions of comptrollership—budgeting and accounting—are concerned, the concept can be declared a success. Comptroller departments perform as efficiently as the fiscal divisions which they replaced. But insofar as the broader functions of comptrollership—the functions of which the Controllers' Institute is so proud, the functions which distinguish controllers from accountants—are concerned, the comptrollership concept in the Navy has not been an unqualified success.

These broad functions have been stated many ways and in many, many words. They can be stated briefly: controllership in the military services, as elsewhere, is built around the central function of providing significant information to management. The comptroller influences management decisions because the quality of the decisions made is dependent upon: first, the basic intelligence and experience of the person making the decision and, second, upon the adequacy of his information regarding the problem to be solved.[42] As envisioned, the military comptroller should be an important

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[41] G. L. Countryman, "New Controllership System Introduced in Shipyards," BuShips Journal, August, 1953, pp. 23-24.

[42] Cf., Report of the Industrial Activities Working Group, p. 15.

member of the management team whose information and guidance influence the commander and top executives to operate the activity economically, efficiently, and effectively.

There may have been and there may be naval comptrollers who have performed exactly as it was planned that they should. If so, however, they have accomplished the nearly impossible by the sheer force of their individual personalities—not by virtue of their positions as comptrollers. Why is the naval comptroller failing to achieve the influence which the civilian comptroller enjoys? Many explanations have been offered, and no doubt most of them contain elements of truth. But the basic reason seems to be the old difficulty: at naval industrial and commercial activities, costs are not the paramount consideration.

Frederick C. Mosher is saying the same thing when he writes:

> Controllers grew up to meet the demands of increasing complexity and bigness in private enterprise. In that realm, they have proven useful. The defense of the United States has often been called the biggest "business" in the country. In fact, each of the military departments is bigger, by almost every measure, than any private enterprise. Therefore, so the logic runs, they should have controllers. A flaw in this reasoning is that the organization for defense of the United States is not a business in the standard sense of the term. It employs businesses and business practices, and it perhaps should use more of them. But essentially its functions are public and governmental; the processes and the factors entering into decisions concerning it are political; the measurement of performance in terms of objectives in peacetime is political and in wartime rests upon military success or failure, ultimately upon national survival.[43]

The fact that costs are not primary determinants at naval industrial activities is probably the insuperable difficulty. It is the fatal defect which means that the naval comptroller can never have the effectiveness of the typical comptroller in private enterprise. There are other defects in the military comptroller set-up.

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[43] Mosher, Program Budgeting: Theory and Practice, pp. 218-219.

The profit motive is missing:

> The basic and ultimately the only criterion of business success and failure is profit and loss, which, in the last analysis, can be measured only in monetary terms. Financial data must therefore be the core of the information essential to business management.[44]

Except insofar as the lack of a profit motive means that costs will be secondary or tertiary considerations, the profit motive's absence is not a situation which dictates absolutely that naval industry must inevitably differ from private industry. Were it not for other factors, "breaking even" could provide military industrial leadership with as much incentive as "making a profit." After all, military industrial leadership has a great deal of experience with precisely that sort of thing in personal finance.

> The purpose of cost accounting in the industrial activities of the Defense Department are practically identical with those of private industry. The much touted absence of the profit motive, the profit motive which is supposed to be so all-pervasive in private accounting, does not turn out to be as significant as often assumed. In one private concern, we may budget for an average net profit of 35%, in another the goal is 10% or 5%. How much different is the situation if we reduce our profit objective to 0% in the Defense establishment? Regardless of the size of the target or its plus or minus characteristics in both situations, the essential relationship is a matching of revenues and expenses on whatever reasoned basis "policy" has established.[45]

The position of the controller in the military organization is probably a more serious hindrance to his effective operation. The Industrial Activities Working Group lamented that the military comptroller had not taken his place as a full partner on the management team.[46] Frederick C. Mosher pointed out some of the reasons why the military comptroller has not

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[44] Ibid., p. 199.

[45] Report of the Industrial Activities Working Group, p. 24.

[46] Ibid., p. 22.

and cannot become the full partner which the Industrial Activities Working Group envisioned.

> In a third important respect, however, there is doubt whether the military comptrollerships are in conformity with the business doctrine. This is that they should have a channel and a sense of responsibility outside the hierarchy of the organization. To be sure, they do have such a channel in law and in form . . . but it is hardly imaginable that the military comptroller could act as a checker or informer on his department directly to the secretary--i.e., that he would report anything seriously critical about the command or give advice on change of important policy without clearing it with his military chief. The comptroller is part of the military "team" which is another way of saying that his allegiance to the command is undivided.[47]

These differences which distinguish the comptroller concept in the military from the comptroller concept in private enterprise act to vitiate the military comptrollers' effectiveness. But there are no reasons why these differences (they are not always defects) should reduce his effectiveness to nil. The military comptroller—especially one operating with industrial fund financing—should still be able to do a great deal to hold the line against rising costs. It is worthy work.

Initial Errors.--

> The use of the Navy Industrial Fund system of financial management, which provides for budget participation and responsibility for expenditures at individual cost centers, has resulted in a greater awareness of costs throughout all levels of shipyard management. This increase in cost consciousness has led to better control of expenses and resultant economies.[48]

More than anything else, the foregoing quotation is an exaggerated expression of a hope. It is an unintentionally candid comment on the status of naval cost consciousness before industrial fund financing. The fact is

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[47] Mosher, Program Budgeting: Theory and Practice, p. 219.

[48] Excerpts from ComPearl Harbor NavShpYd ltr dtd. 20 July 1955 to Chief, BuShips as quoted in The Navy Industrial Fund Program, Part IV.

that the comptrollership concept and industrial fund financing did not produce, ipso facto, a cost consciousness throughout all levels of shipyard management. All levels of shipyard management continued to be interested in doing good work on schedule. There is even some evidence that, freed from the shackles of appropriation, allotment, and project order accounting, shipyard management grew less, not more, cost conscious.[49]

If any blame attaches to this situation, some of it must surely belong to the comptrollers themselves. They tried to do too much too soon. Perhaps they believed their own publicity. In the early days, a reasonable man might have been justified in believing that a change in the method of financing could metamorphose governmental industrial activities into facsimiles of private industrial enterprises. And he could also have believed that private industrial enterprises are invariably economical, efficient, and effective. But disillusion would not have been long in coming. The first of these assumptions proved untrue when tested empirically, and there is reason enough for skepticism in regard to the second.

In addition, military comptroller personnel suffer from an occupational disease that afflicts most military personnel, the effect of which has often been underestimated or overlooked. Their tenure is not long and if they are to make a mark, they must make it quickly. Civilian personnel in the military comptroller programs were eager because they knew that higher ratings were in the offing.[50] In short, military comptroller personnel may have tried to move too fast. And they moved against formidable indifference, if not outright opposition.

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[49] Cf., Report of the Industrial Activities Working Group, p. 13 et passim.

[50] Report of the Industrial Activities Working Group, p. 66.

> Ironically, it will often be the management which the comptroller is trying to serve which will want to block his efforts to change the existing systems. Under these conditions the comptroller will need to possess a large order of human relations know-how in addition to his technical proficiency if he is to be really effective.[51]
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> . . . . . .
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> Beyond the absolute needs of the appropriation responsibilities, the (appropriation) accounting system did very little to produce management information.[52]
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> . . . . . .
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> The comptrollership function is the collection, presentation, and interpretation of quantitative information to aid management in making its decisions.[53]

Industrial funding produced a flood of financial information. It inundated a top management that was still primarily interested in meeting schedules and doing fine work. Asking the production officer of a naval shipyard to give careful consideration to a report of costs is roughly equivalent to asking the President of the United States to give careful consideration to the plight of the Navajo. No one denies that the Navajo has grave problems, but . . . .

Initially, and to a lesser extent to date, the financial information was presented to management couched in accountants' jargon that was next door to incomprehensible. The following examples are taken from weekly and monthly reports to management. They are not horrible examples—they typify the style and content. They are quoted out of context, but the clarity is not altered by restoration.

> The shipyard operated at an under-absorption of approximately $113,000., split $40,000. under in the general centers and $73,000. under in the production centers . . . the under-absorption is slightly higher than in June. The production expense centers contributed 60% of the total. The drop in direct labor hours exceeded the drop in expense causing a larger under-absorption than June.

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[51] Ibid., p. 19.

[52] Ibid., p. 17.

[53] Ibid., p. 22.

. . . . . .

Gas plant costs increased by more than 50% over June due to inauguration of the accrual concept to Purchased Gas and Direct Material.

. . . . . .

Heat will be under-absorbed throughout the summer due to shutting off heat distribution. This situation will reverse itself when the heat is turned on in the fall.

. . . . . .

The adjustment (credit) of 50 thousand to expense resulting from the establishment of the Deferred Charges Inventory Account is attributed to: (1) the dollar value of material (reproduction supplies, PPC Forms, and EAM cards) picked up in this account and credited to expense, and (2) the closing of certain accrual expense jobs for this material which were over accrued at time of closing and resulted in a credit to expense.[54]

Such financial reports to management failed to have the impact that was expected. At one shipyard the Comptroller Department received in two years only a single indication that the commander was getting the Monthly Financial and Operating Statement with Supporting Schedules. He scratched his new desk with a loose staple and sent over unequivocal instructions that the reports were to be stapled more carefully in the future. Even a member of top management who had accounting training [he was a former auditor] was forced to ask for translations, interpretations, summaries, explanations. It should be added in behalf of naval comptroller departments that they have made a steady effort to render their published information comprehensible. But much remains to be done.

Perhaps the most significant development under the Navy Industrial Fund operation has been the establishment of Cost Center reviews. During these reviews, actual expenditures are compared with related budgeted amounts, and responsible personnel are required to explain all important variances. This review is being aggressively prosecuted within this shipyard, and the most beneficial result has been a notable increase in cost consciousness through every strata of shipyard management. Although intangible and not susceptible to measurement, this awareness of cost and the

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[54] The sources of these quotations have been omitted. There is no point in singling out shipyards in this context. The quotations are all taken from published financial reports of naval shipyards. The reports of all shipyards are similar.

attendant necessity for intelligent fiscal planning can be of inestimable value in improving the yard economy.[55]

In point of fact, cost center reviews at shipyards were conferences between comptroller personnel and representatives of the cost center concerned. Often the shop master himself would attend and he would be supported by his shop authority on finance. Shop masters are, in most cases, men of outstanding ability; but they are not men primarily concerned with finance. The comptroller representatives would ask if the shop master was getting all the financial information he wanted and needed. Invariably he would say that he was, and would imply that he was, in fact, receiving a superabundance, a bellyful. If, however, the comptroller department had not been bothering him, he would state how much better he thought the new system was. On this happy note, the cost center review participants would run down the most recent report on the shop's budgeted and actual cost figures: supervision, shop planning, shop general, safety program, training program, fuel, minor shop store issues, etc.

The procedure had inherent defects. There is nothing wrong with living within a budget on such things as "shop general" expense. And there is nothing wrong per se with comparing actual expenditures with budgeted amounts by object classification. But, whether or not the shop master realized it, the really important expenses were not—and are not—within his control. His shop overhead rate was far more dependent on the uncontrollable direct labor hours worked than on the controllable minor expense items.

There are two needed improvements which quite obviously are waiting action by the trained imaginative comptroller. . . . The first needed improvement is a much closer study of the important

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[55] ComMare NavShpYd ltr. dtd. 21 July 1955 to Chief, BuShips as quoted in The Navy Industrial Fund Program, Part IV.

line of demarcation between controllable and non-controllable expenses within the departments or shops. Failure to make this differentiation on a realistic basis throws the whole matter of controlling shop expenses into disrepute and disregard. The departmental foreman (shop master) must be completely convinced that the cost controlling task put upon him is a feasible one, that he really can control the expenses for which he is being held, and that no noncontrollable items are going to confuse the picture of his actual performance as measured by the accounts. Such a careful division of the departmental expenses between controllable and noncontrollable elements will make the calculation of departmental efficiency more than just another calculated figure in a report. The second needed improvement is the application of the principles of variable budgeting. At the point of product costing, this problem runs into all the intricacies of stand-by, practical capacity, and top-level overhead rate considerations . . . the philosophy of the variable budget could be used by the comptroller to get realistic expense control at the departmental level.[56]

Cost center reviews were friendly discussions of peanuts. Under the circumstances, they may have done as much to discredit the comptrollership concept as they did to promote cost consciousness. This error is not exclusively the Navy's, however; the Navy was just being businesslike. In the 1957-58 recession, segments of American business tried much the same sort of thing. But private enterprise was quick to learn, or rediscover, that worthwhile savings had to come from increasing the productivity of labor, controlling material costs, simplifying product lines, and streamlining the organization.[57] Streamlining the organization means discharging unnecessary employees. Not all of these methods are available to naval industrial activities, but the ones that are should be copied.

In all probability the most enthusiastic proponent of industrial fund financing and the comptrollership concept would not care to declare the experiment with internal review and audit an unqualified success.

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[56] Report of the Industrial Activities Working Group, p. 29.

[57] Edward T. Thompson, "The Cost-Cutting Urge," Fortune, March, 1958, pp. 119-121, 228, 230.

> There is some difference of opinion as to how far the internal audit should go toward checking into matters of substantive performance, i.e., matters that go beyond the record keeping and information system. Here, again, the advocates of the "strong" auditor concept see no limitation.. . . We would expect to find that the comptroller at the local activity would have reporting to him a division of internal audit and control. This division should have two sections, one being the systems and procedures section and the other being the internal audit section.[58]

No doubt the effectiveness of the internal audit division of the comptroller department varied from activity to activity. But, in general, the internal auditors ran afoul of military relationships. Even when the internal auditors were wholeheartedly supported by the comptroller—which was by no means always the case—the comptroller himself lacked the power to carry their recommendations through to fruition. Sometimes the recommendations were petty, but, even when they were not, top management, when it bothered to take notice, either damned or pointedly ignored them. The audit concept has since been modified, and at the larger naval industrial activities, emphasis has been shifted to the external audit by representatives of the Comptroller of the Navy.[59]

Budgeting was not as effective as it might have been. The budget was based on expected workload which was not determined locally. The workload was modified frequently at higher levels, and since the budget was inflexible, results were often misleading. There was a tendency to misplace the emphasis in attempting to control costs. Attempts at internal review, audit, and control were, for the most part, failures. But:

> Our own investigations made it quite clear to us that the situation is not one that can be cleared up by fiat no matter

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[58] Report of the Industrial Activities Working Group, p. 39.

[59] Lecture by Captain J. B. Kackley, Supply Corps, United States Navy, to the Navy Graduate Comptrollership Program, The George Washington University, March 20, 1959.

how well conceived. We are convinced that the situation calls for a long program of patient development, organization, training, and education. We are certain that such means can bring about substantial improvement in efficiency, saving hundreds of millions of tax dollars, and a stronger national defense.[60]

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[60] Report of the Industrial Activities Working Group, p. 14.

CHAPTER VI

BRAINSTORMING THE PROBLEM

> "Brainstorm" means using the brain to storm a creative problem--and to do so in commando fashion, with each stormer audaciously attacking the same objective.[61] . . . Four rules for brainstorming emphasize an unfettered atmosphere as participants "go to play" on a problem unhampered by judicial reasoning, "musts," "do's," "don't's," and "can't's."[62]

What could be done.--Brainstorming the problem, "How can naval industrial enterprises be made more like private corporations to the end that they operate with the economy, efficiency, and effectiveness which distinguishes private enterprise?" should produce suggestions very like the following.

Someone near the summit in government must decide that cost considerations are paramount in military production. This intelligence must be promulgated from top to bottom. Everyone must recognize that to make even one exception is tantamount to pulling the thumb from the dike.

Activity commanders must understand that henceforth the control of costs is their most important duty. They will be expected to produce work that is acceptable to their customers, but they must produce it at the

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[61] Alex F. Osborn, Applied Imagination: Principles and Procedures of Creative Thinking (New York: Charles Scribner's Sons, 1953), p. 80.

[62] Lester R. Bittel, "Brainstorming: Better Way to Solve Plant Problems," Factory Management and Maintenance, May, 1956, p. 99.

absolute minimum cost. If this means doing the work quickly, then expenditure limitations that cause stretch-outs will be ignored. If this means doing the work slowly, then customers' schedules that cause speed-ups will be changed. Activity commanders should realize that their personal success will depend on their success in controlling costs.

If an activity commander is to be given this responsibility, he must be given the authority to discharge it. His relationship to a management bureau will be that of a corporation president to a board of directors. The activity commander can be replaced, but as long as he is in the job he has the authority to do the job in his own way. Perhaps a division manager of a thoroughly decentralized corporation would be a better model for what the activity commander should be. He will have the right to select his top management military and civilian personnel; he will be able to retain them as long as he needs and wants them. He must have the right to hire and fire civilian personnel without regard to Civil Service regulations. Veterans' preference legislation will not apply to the employees of naval industrial activities. The wage rates paid will be the most advantageous that the activity commander can negotiate for the Navy. The activity commander will have to be able to adjust his manning levels to planned production as quickly as would, for example, the head of General Motors' Buick Division.

The activity commander must have the authority to influence his workload. He should be allowed to bid competitively for work. He must be allowed to refuse work if he feels that he cannot do it economically. During slack periods he may accept work which he would otherwise refuse. Research will be restricted to applied research. A generous expense account will be provided to enable the activity commander to entertain his prospects: the fleet, force, and type commanders.

These customers must also be impressed with the importance of getting their work done for the lowest possible cost. Customers will shop around. Work will go to the lowest bidder. Customers must understand that they are responsible for the accomplishment of their military missions but the missions must be accomplished as inexpensively as possible. In most cases of doubt, the mission will be modified or its fulfillment will be postponed. All other things not being equal, the officer who does what he is required to do by the least expensive means will be appraised most highly.

The activity commander will be allowed to procure his raw materials where and as he chooses. If in his judgment speculation in raw materials is wise, he will speculate. In this respect he will be censured only for poor judgment. If the build-up of inventories embarrasses his cash position, he will have the authority to borrow at the prevailing interest rate. The loans can be guaranteed by the Government. The Navy supply system will be used as a source of supply only for those items which are competitively priced. The industrial activity will have its own procurement and supply divisions; they will be financed by the activity's funds, the Navy Industrial Fund. Governmental procurement regulations will not apply to industrial activities.

But there will have to be some checks on the autonomous activity commander to make certain that he is fulfilling his responsibilities economically, efficiently, and honestly. So the comptroller should report directly to the management bureau on all aspects of the activity commander's efficiency. This should also increase the comptroller's effectiveness. As a military courtesy, the comptroller might apprise the activity commander of the general tenor of his reports. The comptroller's fitness reports must be prepared by the management bureau.

It will certainly develop that some naval industrial activities cannot produce economically, efficiently, and effectively. This will be the

case in spite of the efforts of hard-working commanders and comptrollers. The activities may, for example, be using facilities that are 150 years old, be 3,000 miles removed from their principal suppliers, be located in areas where six months of the year only Eskimos could be productive in outside jobs, be situated where high wage rates prevail. Neither maximizing productivity nor minimizing costs will be possible. Customers will necessarily go to the more efficient activities which will grow larger and even more efficient. When it is established that an activity is uneconomic, it must be closed. Economic operation will be the sole determinant. Other factors, such as mobilization requirements and political considerations, will be ignored and forgotten. Protesting Congressmen—should there be any—will be given a well-written, standardized official handout on the need for economy in the Department of Defense.

These are suggestions for heightening the likeness of naval industrial activities to private industrial activities. Abandoning the rules of brainstorming, a cynic might observe that certain of the recommended changes will not, cannot, should not, and must not be accepted. Ergo, in certain basic respects, naval industrial activities will never be like private industrial activities. Does it follow then that nothing can be done? Is it axiomatic that naval industrial activities cannot be run economically, efficiently, and effectively? The answer is "No."

Perhaps they cannot be run as economically, efficiently, and effectively as private industrial activities, but industrial fund financing and its concomitants provide accurate costs, and accurate costs are the sine qua non of economical management. With this information, management has been pursuing and will continue to pursue cost reduction programs.

What is being done.--For example, reliable estimates indicate that the success of the shipyards' Production, Planning, and Control (PPC)

systems has managed to offset 50% of the inflationary rise in the cost of shipbuilding materials and labor.[63] PPC is a complex, industrially engineered system for decentralizing planning and scheduling; these functions are concentrated in the shops, but there is centralized, coordinated control. Under the old procedures, planning and scheduling were performed by one top-level department. This department now coordinates the planning and scheduling done by the shops. It seems to work better.

It could be noted, in an attempt to indicate that the Navy is not always complacent and confident, that PPC represents an effort to make improvements in an area in which the Navy has frequently been appraised as satisfactory.

> The difficult problem of over-all work scheduling has been well handled in the industrial activities, especially in the shipyards where it is present in an exceptionally acute degree. The necessity of the situation has over the years compelled the shipyards to work out a solution.[64]

The system was not implemented without opposition; it was a change and it was opposed. There was no shortage of sophisticated persons to proclaim that the system would not work. But it promised handsome economies through improved utilization of men and more intelligent procurement of materials. So PPC was implemented and is establishing itself as an improvement. Results should be increasingly gratifying.

There are still many dollars to be saved through material control. Shipbuilding material problems arise in connection with material that is not on hand; seldom with material that is available. Since this is the case, production people are prone to order three of an item to make absolutely

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[63] Interview with Captain E. H. Batcheller, March 16, 1959.

[64] Report of the Industrial Activities Working Group, p. 13.

certain that one will be on hand when needed. This is not always waste, of course; a labor force standing idle for want of material is also costly. But obviously the practice often leads to waste. "We must have one of a required item, yes. But we do not need three."[65]

Even at a small shipyard, the weekly list of procurement items requiring special attention usually runs to fifty. These often necessitate costly phone calls, air transportation, and duplication of shipments. If the material arrives on time, the effort will be declared a success; in such instances, cost is not considered. It is the rare shipyard employee who has not seen such a major procurement effort crowned with success (perhaps triple success) only to see the material put aside for a month before being used. There is no clearcut answer and the problem will be under study as long as naval industrial activities exist. It will never be completely solved. But the situation can be mitigated by increasingly careful planning and scheduling and, above all, judicious application of common sense.

Great savings would also result if the customers of industrial activities could somehow be made cost conscious. For the most part, shipyards' customers are type commanders. They are military men vitally concerned with operations, schedules, material readiness, strategy, and tactics. "For every customer who has scrutinized cost, there are one hundred who have worried about meeting schedules."[66] Shipyards have at least one thing in common with civilian business: the customer is usually right. The attitude of the customer necessarily influences the attitude of the activity's commander. Meeting schedules becomes more important than holding down costs. Shipyard commanders are frequently disenchanted by using overtime to meet an immutable schedule only to see the vessel completed but idled by a change in

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[65] Interview with Captain E. H. Batcheller, March 16, 1959.

[66] Ibid.

the schedule. Again there is no simple answer. The thinking of centuries cannot be changed overnight, and in some cases it should not be changed. One hesitates to hang a price tag on the Nation's security.

"All goddam auditors ought to be in the bottom of hell!"[67] But the morning newspaper reports that:

> . . . The United States Fleet is not in an acceptable state of readiness a board of civilian ship experts has warned the Navy. . . . Blame for the bad material condition of most of the Navy warships was put on the age, the tempo of operation of ships and the funds available for maintenance, modernization, and new construction. . . . The report declared that the Nation must make a choice: either provide a substantial increase in maintenance, modernization, and new construction funds or decide it cannot afford the size Navy now maintained and cut it down to a size where the funds allowed are sufficient to keep the reduced number of ships in good shape.[68]

The Navy commissioned and paid for the study. And the findings of the "civilian ship experts" ring too pleasing to the purchaser to be proclaimed thoroughly objective. It is not inconceivable that the Navy is using "independent" studies and the press to cajole--not to say, blackmail--money from Congress. No matter if the tactics are a bit obvious, even the most operations-oriented officer should be able to see that, in peace-time, cost and strategy are not independent; they cannot move in all ways free.

The search for an acceptable compromise between feasible expenditure and desirable strategy will continue. Industrial fund financing of naval manufacturing activities has produced facts bearing on the cost portion of the problem. It has provided information which must be known before intelligent action can be taken to control costs. In all areas much more can be

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[67] Attributed to General George S. Patton as quoted in Mosher, Program Budgeting: Theory and Practice, p. 191.

[68] "Civilian Study of Navy Finds Fleet Not Ready," The Washington Post and Times Herald, March 31, 1959, p. A1-2.

done. And in all areas there are naval personnel who are trying to do it. They are trying to run naval activities economically and efficiently; that is, presumably, in a businesslike way. But they are struggling with internal and external limitations not known to free enterprise. It is well if their equipment includes a sense of humor.

CHAPTER VII

CONCLUSIONS

> The present industrial fund method of financing—or something very similar—is the answer to the anomaly of the industrial unit within the governmental accounting structure.[69]

1. A naval industrial activity is not a private corporation. In spite of superficial similarities, naval industrial and commercial activities are not private corporations. Well-meaning experts have tried to enhance the similarities. But the factors influencing decisions make the big difference. Decisions at naval activities have not as yet been based primarily on cost considerations. Chronological, technological, and political considerations have taken precedence.

2. Costs can be controlled more effectively, but first controversial changes must be made and the changes are unlikely. Perhaps decisions at naval activities should be dictated by costs. Perhaps the day will come when they must be. If so, industrial fund financing and accounting provide management with the information that will be needed. A genuine buyer-seller relationship between military consumers and producers would result in lower costs. So far the buyer-seller relationship has not developed and it is never likely to. Someone in authority must decide that costs are the primary consideration. The activity commanders must be given more autonomy, authority commensurate to responsibility. The decision is not likely to be made. The changes will never come about.

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[69] Report of the Industrial Activities Working Group, p. 13.

3. Industrial Fund financing leads to more efficient accounting. The use of the Navy Industrial Fund is the best method of financing naval industrial and commercial activities. Industrial fund financing leads to accurate budgeting, accounting, cost accumulation, and reporting. These factors alone more than justify the change. Techniques can always be improved; the basic plan is sound.

4. Military comptrollers can be useful; they can discourage the rise in costs. The expectations and claims arising incident to Navy Industrial Fund financing were foolishly optimistic. Industrial fund financing cannot produce economy, efficiency, and effectiveness automatically—not even when combined with the comptrollership concept. In spite of the limitations inherent in the military situation, however, the concomitants of industrial fund financing are potentially valuable tools. A clever comptroller can use these tools—even though they may be blunted by military circumstance—to inhibit the advance of costs. But the comptroller can do nothing alone: he must have cooperation. In order not to undermine the entire comptrollership concept, he should avoid being penny-wise and pound-foolish. Significant savings must come from the control of material costs and increases in the productivity of labor. This requires continuing team effort. An astute comptroller can be an important member of this team. The effort is necessary and even partial success is worthwhile.

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